Thermopatch
Since 1934

# NL-15 R/SQR MAMMOTH User manual

**ATTENTION!**

**All persons involved in installation, commissioning, operation, maintenance and repair of this product should be made available to these instructions.**

thermopatch.com

V. 3.0 ENG
Jan2014

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# Introduction

Dear User,
Welcome to the growing group of Thermopatch users. Your purchase has been manufactured with the utmost care to ensure that you benefit as long as possible from your Thermopatch product.
The products by Thermopatch are designed with special attention to your convenience. Should you discover any fault or damage upon receipt of this product, please contact your local Thermopatch vendor.
The manual has been prepared in accordance with NEN 5509 and in conformity with the Machinery Directive 2006/42/EC. This user manual is intended not only for all users of the machine, but also for those who install and maintain the NL-15 R / SQR. The goal is to familiarize you with the operation, to provide for safe working instructions and guidelines for periodical maintenance.

This manual applies to machines **NL-15 R / SQR** from serialnumbers for **type R: M14-03-0420** and for **type SQR: SQR13-0456.**

☞ **ATTENTION!**

*In order to make safe and optimal use of the NL-15 R / SQR, it is important to take note of and understand the contents of this manual.*

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# DECLARATION OF CONFORMITY

We,
**Thermopatch B.V.**
**Draaibrugweg 14**
**1332 Almere**
**The Netherlands**
herewith declare, on our own responsibility, that the machinery:
Thermopatch Thermoseal NL-15 R / SQR,
which this declaration refers to, is in accordance with the conditions of the following Directive(s):

| | |
|---|---|
| 2006/42/EG | (Machinery directive) |
| 2004/108/EG | (EMC directive) |

Based on DEKRA IEC 610101-1 testrapport nr. 2166589.60-PEP

The Netherlands, Almere, 21-01-2014

Jan Bausch,
Director

# 1. General description

The pneumatic Mammoth is a practical and universal heat seal press with two press pads for optimal use. Therefore, you do not have to wait during the press cycle, but can prepare the next article.
Textile labels, company emblems, repair patches, transfers, in short all Thermopatch materials for marking and repair are easily and permanently pressed on all types of fabric. The machine is hand operated but can also be set to automatic operation. In that case, the press cycle is performed automatically when the swivelling arm comes in the end position.

## 1.1 Delivery

The NL-15 R / SQR is mounted onto a pallet and fixed with straps, covered with a cardboard box.

The following articles can be found at:

- NL-15 R / SQR heat seal machine
- Power cord
- 6 mm air hose
- Quick installation guide
- quality checklist
- Manual on CD-ROM
- CE Declaration of Conformity

If one of these articles should be missing or faulty, please contact your Thermopatch supplier.

## 1.2 Conditions of warranty

Thermopatch points to its warranty and product liability conditions as laid down in our conditions of sales. These can be obtained at your Thermopatch supplier.

# 2. Intended use

The pneumatic NL-15 R / SQR is a heat seal machine that is intended for the application of textile labelling, repair patches and transfers. In short, all Thermopatch marking and mending materials can be applied with the NL-15 R / SQR.

**⚠ WARNING!**

*Any use other than described above can be dangerous and cause damage and thus qualifies as 'misuse' which excludes Thermopatch bv from any liability.*

# 3. Technical specifications

## 3.1 Specifications of the NL-15 R / SQR

### NL-15 R

| | |
|---|---|
| Power | 800 Watts |
| Power supply | 230 Volt |
| Operating temperature | 204 °C |
| Temperature range | 25-210 °C |
| Press Time range | 1-60 sec. |
| Discharge pressure range | 3-6 bar |
| Machine height (open) | 470 mm |
| Machine width | 540 mm |
| Machine depth | 470 mm |
| Gross weight, including packaging | 85 kg |
| Net weight | 65 kg |
| Size sealing pads, round | 160 mm |
| Fuses | 4.0 Ampere |
| A-weighted noise level | <70 dB (A) |

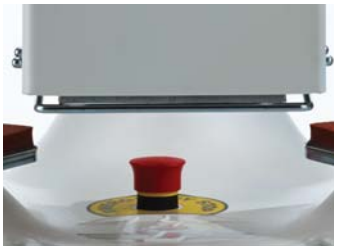
### NL-15 SQR

| | |
|---|---|
| Power | 800 Watts |
| Power supply | 230 Volt |
| Operating temperature | 204 °C |
| Temperature range | 25-210 °C |
| Press Time range | 1-60 sec. |
| Discharge pressure range | 3-6 bar |
| Machine height (open) | 470 mm |
| Machine width | 540 mm |
| Machine depth | 470 mm |
| Gross weight, including packaging | 85 kg |
| Net weight | 65 kg |
| Size sealing pads, square | 140 x 140 mm |
| Fuses | 4.0 Ampere |
| A-weighted noise level | <70 dB (A) |

# 4. Overview of safety measures and warnings

## 4.1 Safety

The NL-15 R / SQR has several features to ensure your safety.



### The safety frame

The press plate of the NL-15 R / SQR is provided with a safety frame. When this is touched or firmly moved, the heat sealing cycle is automatically interrupted.
To resume work, turn the machine off and on again.

### The emergency stop button

In addition to the mandatory safety measures in conformity with the Machinery Directive, from serial numbers:
**Model R: M14-03-0420** and **model SQR: SQR13-0456**, an emergency stop button has been provided to be able to intervene even faster in case of unforeseen events.

### The safety thermostat

The safety thermostat on the heating element will interrupt the power supply when the temperature rises above 270°C.

☞ **ATTENTION!**

*Make sure you are informed about the contents of this manual before starting to work with the NL-15 R / SQR. This ensures an optimal and safe use of the machine.*

☞ **ATTENTION!**

*Always turn the power off (unplug it) when you need to carry out maintenance work or when cleaning the machine.*

☞ **ATTENTION!**

*In case of emergency, press the emergency stop button!*

☞ **ATTENTION!**

*Take care that there is enough space around the machine. Cables and connections must not get pinched. Although the heat radiation of the press is low, there should be enough space for cooling down.*

☞ **ATTENTION!**

*Avoid contact with the press element and the heating element.*

☞ **ATTENTION!**

*Pull the fabrics tight around the press pad and ensure that your hands are away from the sealing pad before operating the machine.*

## Warning symbols

The following warning symbols have been mounted onto the machine for added safety:

△**WARNING!**

*Hot surface*

△**WARNING!**

*Electric tension*

△**WARNING!**

*Pinching hazard*

# 5. Transport and storage

## 5.1 Transport

When the machine needs to be moved, Thermopatch advises to use the original packaging. The machine has to be lifted by the screw that is fixing the swiveling arm and the handle on the front of the machine.

## 5.2 Storage

When the machine needs to be stored, Thermopatch advises to use the original packaging. The machine should be stored on a pallet, off the floor, in dry conditions.

# 6. Operating instruction

## 6.1 Operating the NL-15 R / SQR

You can work with the Mammoth when the machine is connected to the mains.

- Set the airpressure
- See paragraph 6.8 for information regarding the pressure settings required for the NL-15 R / SQR.
- Place the plug in the socket and turn on the NL-15 R / SQR with the ON - OFF switch mounted on the back of the machine.
- Wait until the factory set temperature is reached.

This will take approx 1 minute. The standard operating temperature has been set to 204 °C.
The press can be operated now.

## 6.2 Automatic mode

You can use the NL-15 R / SQR in Auto mode by pressing the **AUTO** -button The press cycle will automatically start when the swivel arm is positioned above the press plate.The robot symbol (🤖) is shown in the display.

☞ **ATTENTION!**

*The automatic mode (🤖) should be switched off, when you wish to change the set values for temperature, pressure and press time.*

*When the automatic mode is activated, the key board will not respond.*

## 6.3 Safety Frame

The upper platen of the press head of the NL-15 R / SQR is enclosed by a safety frame. This frame will react if it is moved or touched and will interrupt the sealing cycle immediately. Switch the machine off and on again to resume work.

## 6.4 The control panel

### NL-15 R / SQR control panel

The pressure, temperature and time are shown on the display.
The minimum, maximum and default values for temperature and pressure have been set by the manufacturer. The following icons are present on the display:

| | | |
|---|---|---|
| **KEYS** | | Temperature setting |
| | | Pressure setting |
| | | Time setting |
| | + | Plus (higher) |
| | - | Minus (lower) |
| | **AUTO** | Automatic mode on / off |
| **SYMBOLS ON SCREEN** | | Automatic mode on |
| | | Power saving mode on |
| | | Next to time indicator |
| | | Second sealing cycle active |
| | | Interruption of the safety circuit |

## 6.5 Change settings

**ATTENTION!**

*The automatic mode (A) should be switched off, when you wish to change the set values for temperature, pressure and press time.*

*When the automatic mode is activated, the key board will not respond.*

### 6.5.1 Temperature settings

The default operating temperature of 204 °C has been set by the manufacturer. In case you want to adjust the operating temperature above or below the default temperature range, please contact the service department of your supplier.
The default temperature range is: minimum 25 °C, maximum 210 °C.

**ATTENTION!**

*The NL-15-R / SQR has maximum a tolerance of 10 ° C above or below the set temperature.*

*If the limit of + or - of 10 ° C is exceeded, the machine cannot be operated.*

#### Temperature change

You can change the temperature in steps of 1 degree by pushing the -button 1 x pushing the + and the -.
You change from Celsius to Fahrenheit and vice versa by pushing the -button for 3 seconds.

#### Temperature check

The temperature is displayed digitally by pressing one key. An additional check of the temperature between the press plates can be performed by means of Thermolabels.

Om de temperatuur te controleren doe het volgende:
To check the temperature, do the following:

1. Let the machine heat up for about 1 minute.
2. Set the time to 12 seconds and close the machine.
3. After opening the machine again, put the Thermolabel on the press pad and close the machine again.
4. Take the label away immediately after opening the machine.

### 6.5.2 Pressure settings

The working pressure of the machine has been set to 5 bar. The pressure regulator on the machine only influences the pressure on the press cylinder. The opening and closing of the NL-15 R / SQR is done with the pressure that is supplied by the machine.
The NL-15 R / SQR has a pressure safety range; this means that a maximum pressure of about 6 Bar and a minimum pressure of 4 Bar is allowed. When the air pressure exceeds

these limits, the machine cannot be operated.
You can set the pressure with the control panel.

### Change pressure

You set the minimum pressure range in steps of 0,1 Bar by pushing the -button and then the + or - button once.
You set the maximum pressure range in steps of 0,1 Bar by pushing the -button and then push the + or – button twice (2x).
The standard working pressure for textile repair and marking is 5 Bar.

## 6.5.3 Time settings

The default sealing time setting of the NL-15 R / SQR is 12 seconds. Adjusting the settings can be done with the control panel.

### Change time

Push the -button once. Change the time setting in steps of 1 second by pushing the - or + button. The range is 1 - 60 seconds.

## 6.5.4 Power save

When you want the machine to switch to a lower energy level when you are not working, you can use the power save mode.
Push the -button twice.
Set the power save mode in steps of 1 minute by pushing the + or – button.
Power save ranges from 1-60 minutes. If it is set to 0 the power save mode is not active and the machine will be heated continuously.

## 6.5.5 Different seal times left and right (optional)

To enable sealing 2 different products in a short time, the seal time for the left and the right sealing pad can be set on a different parameter
Push the -button three times. Change the time for the left sealing pad in steps of 1 second by pushing the + or – button.
If the time is set on 0 seconds the seal time left and right are equal.

### 6.5.6 Second sealing cycle

In some cases it is desirable to seal a second time.
Push the **AUTO** button during three seconds. A second seal cycle of 2 seconds takes place.
You can switch this option off by pushing the button for three seconds once more.

> ☞ **ATTENTION!**
> *If the first sealing cycle has been interrupted, the second cycle will not start.*

### 6.5.7 Interrupting the sealing cycle

There are various means to interrupt the sealing cycle of the machine. You can interrupt the operation by:

1. Pushing a button of the display randomly.
2. Turning the on/off switch on the front.
3. Stir the safety bar.
4. Push the emergency stop button, pull out and switch on the machine again.

> ☞ **ATTENTION!**
> *If the first sealing cycle has been interrupted, the second cycle will not start.*

### 6.5.8 Messages in the display

A description is given below of the messages in the display which appear immediately after turning on the machine. Further, we will discuss some failure codes that can be displayed on the control panel display.

- During heating up of the machine the temperature, pressure and time are displayed.
- During the press cycle the press time is displayed from 0 to the programmed sealing time
- Automatic mode ON/OFF is displayed with the Robot-icon( ).
- is displayed during POWER SAVE MODE.

### 6.5.9 Error codes

There are 6 different failure codes that can be displayed; contact your Thermopatch supplier.

| | |
|---|---|
| 01 | Sensor defective or broken sensor cable |
| 02 | Sensor short cut |
| 03 | Element defective or broken element cable |
| 04 | Pressure set too low |
| 05 | Pressure set too high |
| 06 | Safety switch interrupted or defective |

# 7. Assembly and installation

## 7.1 Assembly

To work seamlessly with the NL-15 R / SQR, it is very important that the machine can dispose of supply of clean, dry air. The water condenser is an additional safety measure. Provide pressure of 4-6 bar from the compressor or its own air supply.
Attach a tube with a diameter of 6 mm at the compressor or own air supply and the air regulator of the NL-15 R / SQR.

## 7.2 Installation

Upon delivery, the NL-15 R / SQR is fastened with straps to a pallet. The arm of the machine is locked with a bolt (M12). Lift the machine out of the box holding it by this bolt and the handle.
Put the machine on a work table near an earthed socket.
Remove the bolt.
Take care that there is enough free space around the machine.
Also take care that there are no items near the machine that are sensitive to heat radiation.

If you have to move the machine at a later time, it is recommended to pack it in a similar way. Let the press cool down before you pack it.

## 7.3 Electrical requirements

The Mammoth should be connected to the electricity grid (230 V alternating current). Use the machine's power cable to provide current. The Mammoth is an earthed machine and has been provided with two fuses of 4.0 amps.

# 8. Maintenance instructions

## 8.1 Daily maintenance

Clean the outside of the machine regularly with a clean, moist cloth. First switch off the machine, let it cool down and pull the plug out of the socket. The inner part of the press must also be cleaned from dust now and then. First switch off the current before performing this operation and remove the bottom plate.
For good press results it is important to keep the press surfaces clean. Therefore, clean the coating of the upper plate with a clean, dry cloth. Do not touch the heating element!
Also clean the rubber of the press shoe daily with a dry cloth. Do not use solvents or other chemical substances to remove impurities. Do not let buttons, zips, etc. come between the plates. In this way, the silicone rubber will remain intact for a long time.

## 8.2 Periodic maintenance

The mechanism of the NL-16 R / SQR needs no maintenance. Run water from the separator at least once a week.
The rubber pad and the upper plate must be cleaned once or several times daily. Clean them with a clean and dry cloth when they have cooled down. They must be absolutely smooth and clean.
Both the and the lower press pad should be replaced regularly.
In order to replace the adhesive, the press machine must be warm. Remove the old pad and carefully remove all glue residues from the metal surface. The surface must be absolutely clean and smooth, so that the new sticks well.

## Teflon replacement

In order to be able to replace the teflon of the upper platen, the press needs to be warmed up until 80 °C. Remove the worn teflon sheet and remove glue residue carefully from the metal surface by using a scraper or a putty knife.
After this, brush the surface with with a copper wire brush. Finally clean the upper platen with a soft cloth. The newly applied teflon will only adhere well when the surface is completely clean.

## 8.3 Parts for regular replacement for maintenance:

| | Art.nr. |
|---|---|
| • **Sealing pads** | |
| for type R: 160 mm round | SPAMA-01-04 |
| for type SQR: 140 x 140 mm | SPAMA-01-04 VA |
| • **Self adhesive teflon sheet** | |
| for type R: 160 mm, round | SPAMA-03-21 |
| for type SQR: 150 x 150 mm | SPAMA-03-21 V |
| • **Fuse** | |
| 4 A TR | SPAMA-04-10 |

# 9. Technical annexes

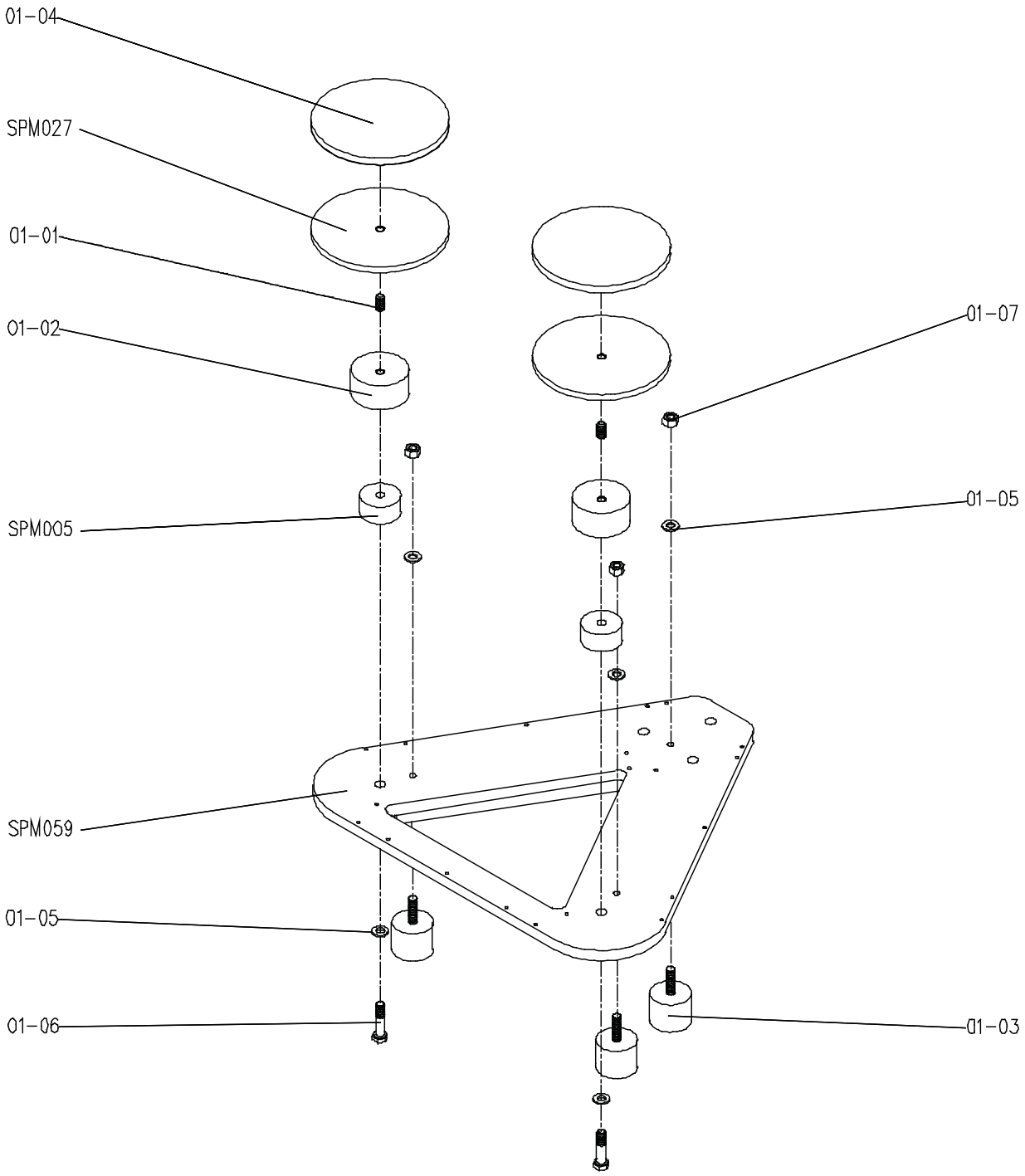
In this chapter you will find the parts lists, the applicable exploded views and the pneumatic and electrical wiring diagrams.

## Parts list 01

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 01-01 | Socket set screw | M10 x 16 | 2 | * |
| 01-02 | Rubber buffer | D=65, h=35 | 2 | SPAMA 01-02 |
| 01-03 | Rubber buffer | D=50, h=40 | 3 | SPAMA 01-03 |
| 01-04 | Resilient pad | | 2 | SPAMA 01-04 |
| 01-05 | Plain washer | 10,5 x 20 x 2 | 5 | SPAMA 01-05 |
| 01-06 | Hex. Head bolt | M10 x 50 | 2 | SPAMA 01-06 |
| 01-07 | Nut | M10 | 3 | SPAMA 01-07 |
| SPM005 | Distance bush | | 2 | SPAMA 005-B |
| SPM027 | Support, resilient pad | | 2 | SPAMA 027-B |
| SPM059 | Mounting frame | | 1 | SPAMA 059-C |

*Thermopatch does not hold stock for this item

## Drawing 01

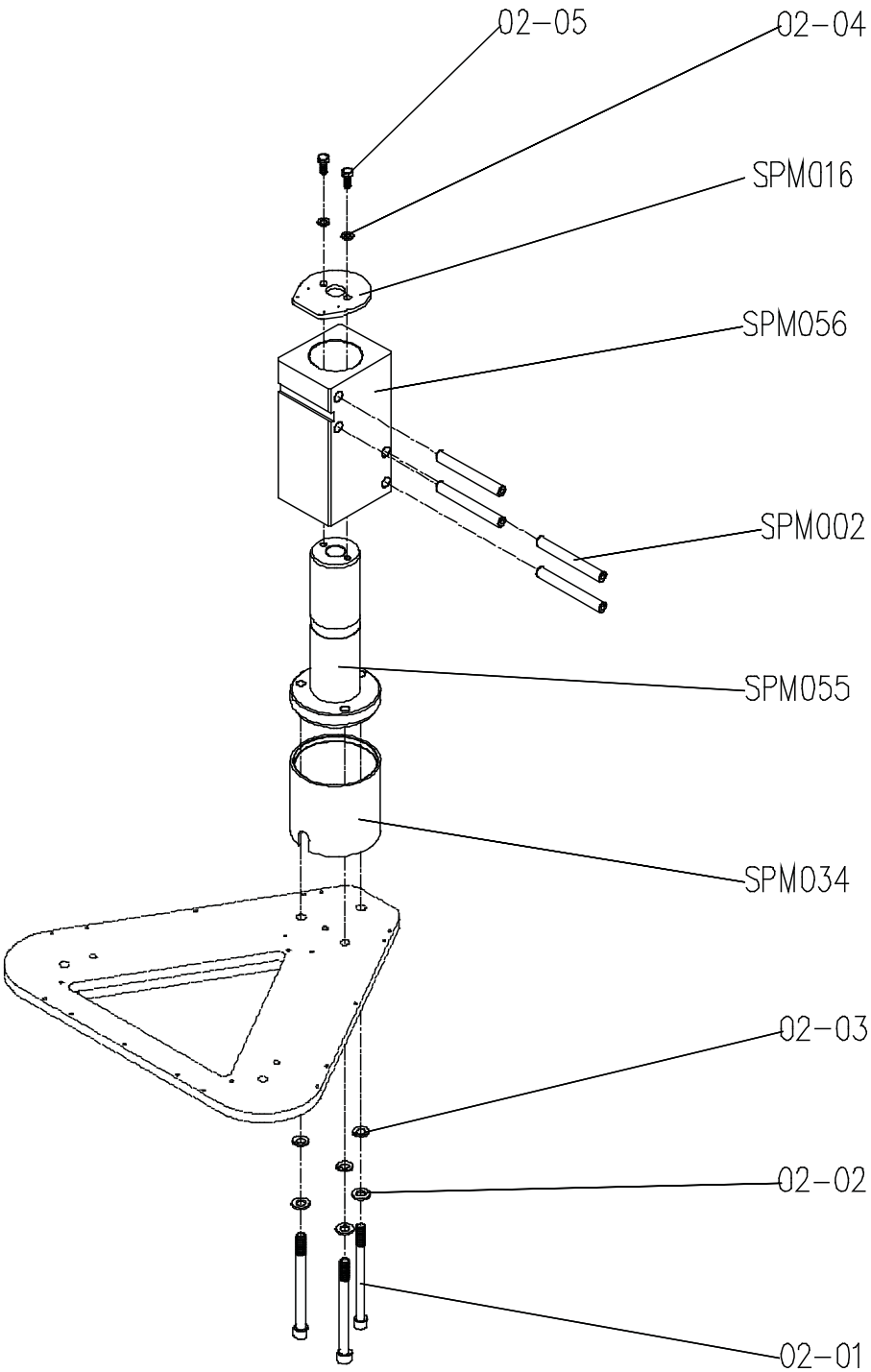

01-04
SPM027
01-01
01-02
SPM005
SPM059
01-05
01-06
01-07
01-05
01-03

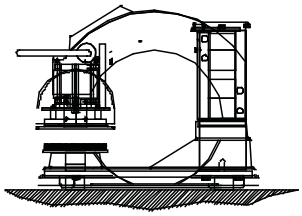
## Parts list 02

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 02-01 | Socket Head screw loctite | M12 x 150 | 3 | * |
| 02-02 | Plain washer | 13 x 24 x 2,5 | 3 | * |
| 02-03 | Spring lock washer | 12,2 x 21,2 x 2,5 | 3 | |
| 02-04 | Plain washer | 8,4 x 16 x 1,6 | 2 | * |
| 02-05 | Socket Head screw | M8 x 20 | 2 | * |
| SPM002 | Shaft, hinge point | | 4 | SPAMA-002-B |
| SPM016 | Top cam, column | | 1 | SPAMA-016-C |
| SPM034 | Distance bush, column | | 1 | SPAMA-034-B |
| SPM055 | Main column, arm | | 1 | SPAMA-055-B |
| SPM056 | Hinge block | | 1 | SPAMA-056-C (incl. 4x GSM-6570-50) |

*Thermopatch does not hold stock for this item

## Drawing 02



MAIN COLUMN & HINGE BLOCK 02

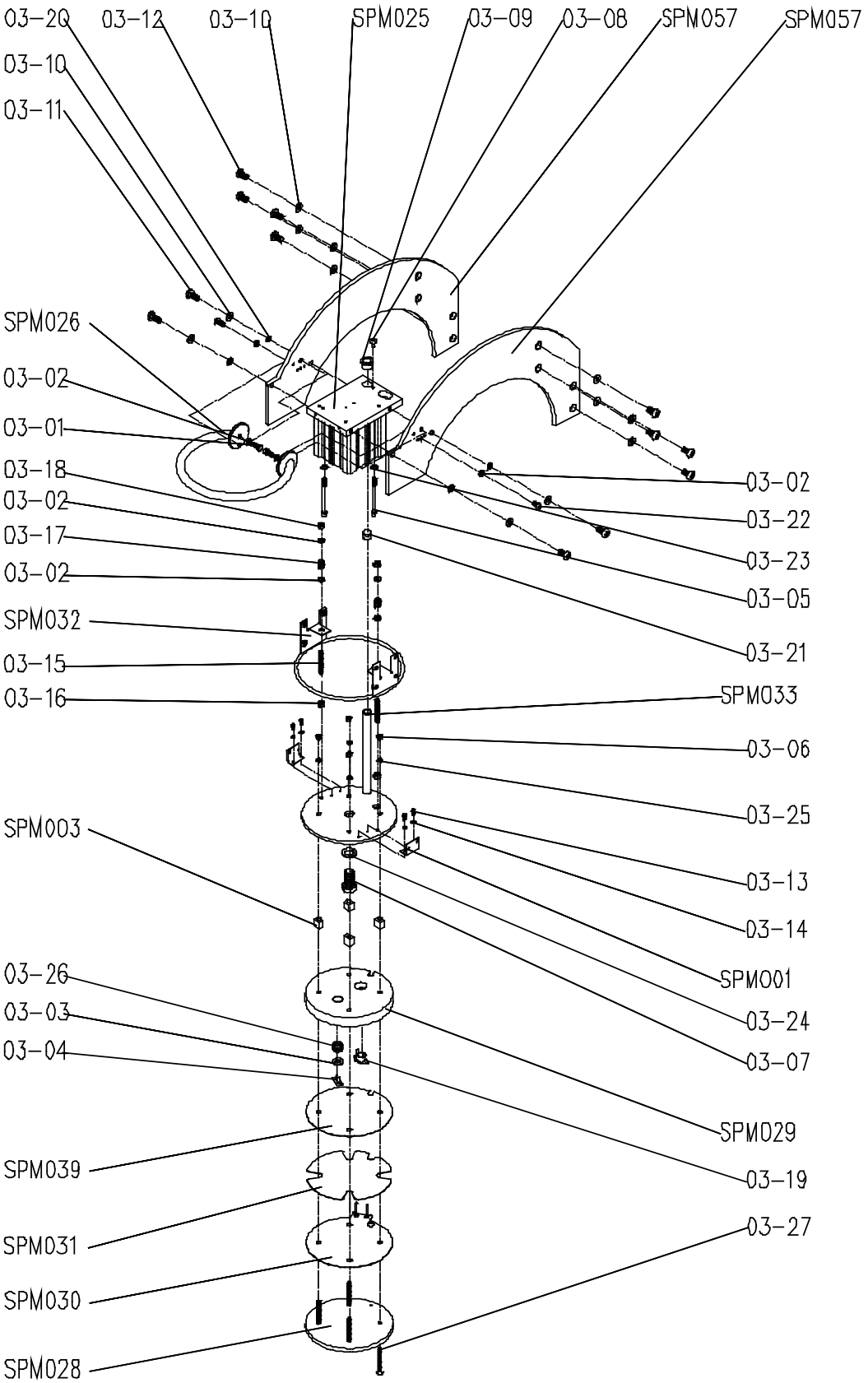
MAMMOTH - SERIE-II August 2104

## Parts list 03 for NL-15 R

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 03-01 | Hex. Head bolt | M6 x 16 | 4 | * |
| 03-02 | Plain washer | 6,4 x 12 x 1,6 | 10 | * |
| 03-03 | Bush | | 1 | SPAMA 03-03 |
| 03-04 | PT-1600 | TP | 1 | SPAMA-03-04 |
| 03-05 | Socket head screw | M6 x 90 | 2 | * |
| 03-06 | Nut | M6 | 3 | * |
| 03-07 | Hex. Head bolt | M16 x 20 | 1 | * |
| 03-08 | Socket button screw | M6 x 10 | 1 | * |
| 03-09 | Slide bearing | | 1 | SPAMA 03-09 |
| 03-10 | Plain washer | 8,4 x 16 x 1,6 | 4 | * |
| 03-11 | Socket button screw | M8 x 20 | 4 | * |
| 03-12 | Socket button screw | M10 x 16 | 8 | * |
| 03-13 | Socket head screw | M3 x 8 | 4 | * |
| 03-14 | Plain washer | 3,2 x 7 x 0,5 | 4 | * |
| 03-15 | Socket set screw | M6 x 50 | 2 | * |
| 03-16 | Nut | M6 | 2 | * |
| 03-17 | Spring | | 2 | SPAMA 03-17 |
| 03-18 | Lock nut | M6 | 2 | * |
| 03-19 | Thermostat | TP | 1 | SPAMA-03-19 |
| 03-20 | Lock washer | | 4 | SPAMA 03-20 |
| 03-21 | Teflon self-adhesive (not on drawing) | | 1 | SPAMA-03-21 |
| 03-26 | Spring | | | SPAMA-03-26 |
| 03-27 | Bolt | | 4 | SPAMA-03-27 |
| SPM001 | Bracket safety switch | | 2 | SPAMA 001-C |
| SPM025 | Bracket air cylinder | | 1 | SPAMA 025-D |
| SPM026 | Handle, press arm | | 1 | SPAMA 026-B |
| SPM028 | Heater shield | | 1 | SPAMA 028-B |
| SPM029 | Isolating plate | | 1 | SPAMA 029-C |
| SPM030 | Silicon element | | 1 | SPAMA 030-B |
| SPM032 | Safety rack | | 1 | SPAMA 032-C |
| SPM033 | Safety bracket | | 1 | SPAMA 033-C |
| SPM039 | Aluminium disc | | 1 | SPAMA 039-C |
| SPM057 | Press arm | | 2 | SPAMA 057-C |

*Thermopatch does not hold stock for this item
** Only replace when the heating element or the PT1600 sensor is replaced.

## Drawing 03 for NL-15 R

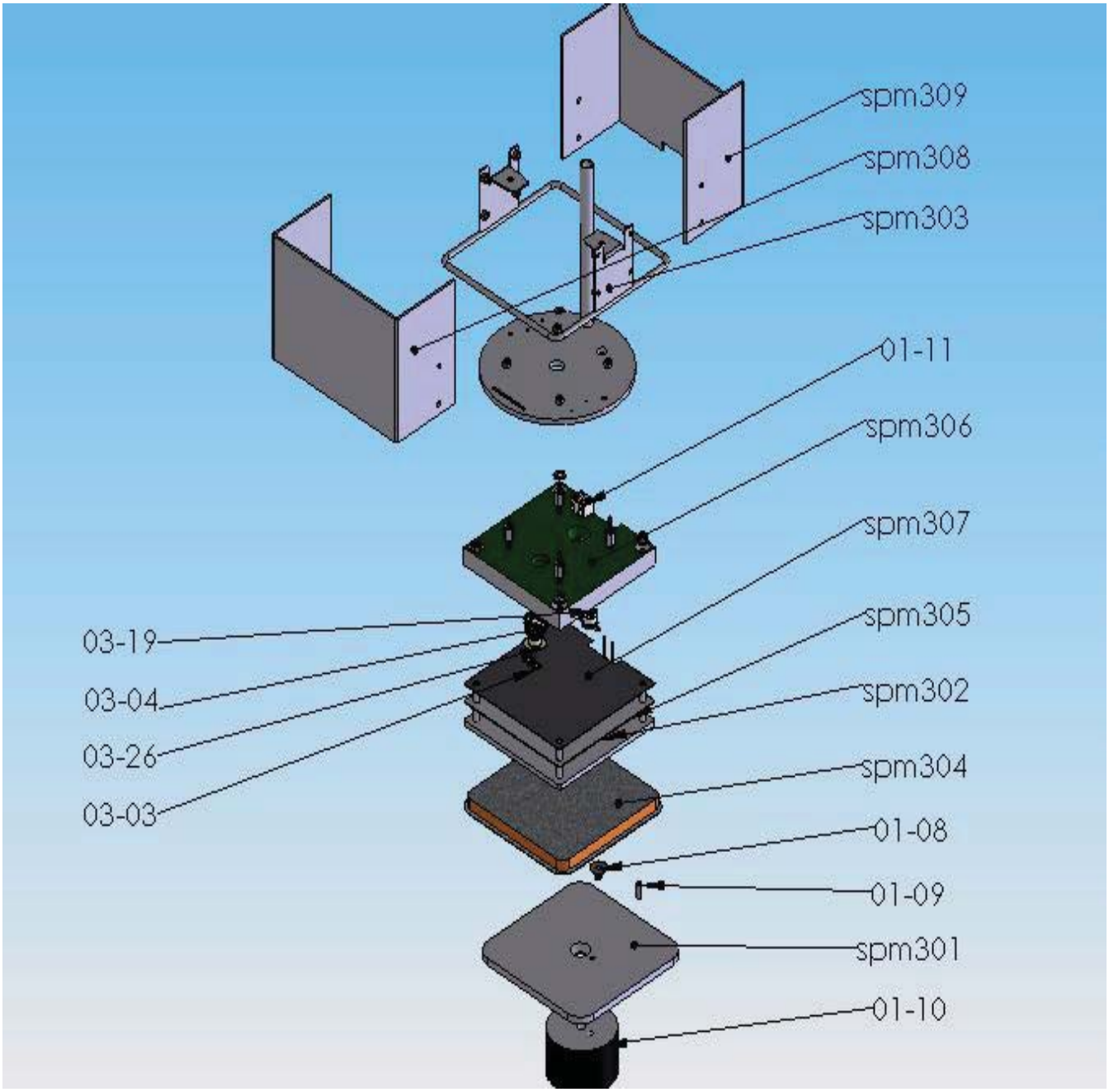


## Parts list 03 for NL-15 SQR

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 01-08 | Countersunk bolt | M10x12 | 2 | SPAMA 01-08 |
| 01-09 | Spring pen | D=6 l=20 | 2 | SPAMA 03-26 |
| 01-10 | Rubber buffer * | D=65 H=35 | 2 | SPAMA 01-02 |
| 01-11 | Ceramic terminator | | 1 | SPAPEN03-04 |
| 03-03 | Bush | | 1 | SPAMA03-03 |
| 03-04 | PT-1600 | | 1 | SPAMA03-04 |
| 03-19 | Thermostat | | 1 | SPA105012 |
| 03-26 | Spring | | 1 | SPAMA03-26 |
| SPM301 | Support resilient pad* | 160x160 | 2 | SPAMA027-V |
| SPM302 | Heatershield | 150X150 | 1 | SPAMA028-V |
| SPM303 | Safety rack | 160X160 | 1 | SPAMA32-Z |
| SPM304 | Resilient pad | 150X150 | 2 | SPAMA01-04-V |
| SPM305 | Heater | 150X150 | 1 | SPAMA-030-C |
| SPM306 | Insulation | 150X150 | 1 | SPAMA-039-V |
| SPM307 | Cover aluminum | 150X150 | 1 | SPAMA307 |
| SPM308 | Safety front | | 1 | SPAMA308 |
| SPM309 | Safety back | | 1 | SPAMA309 |

*Thermopatch does not hold stock of this item

## Drawing 03 for NL-15 SQR



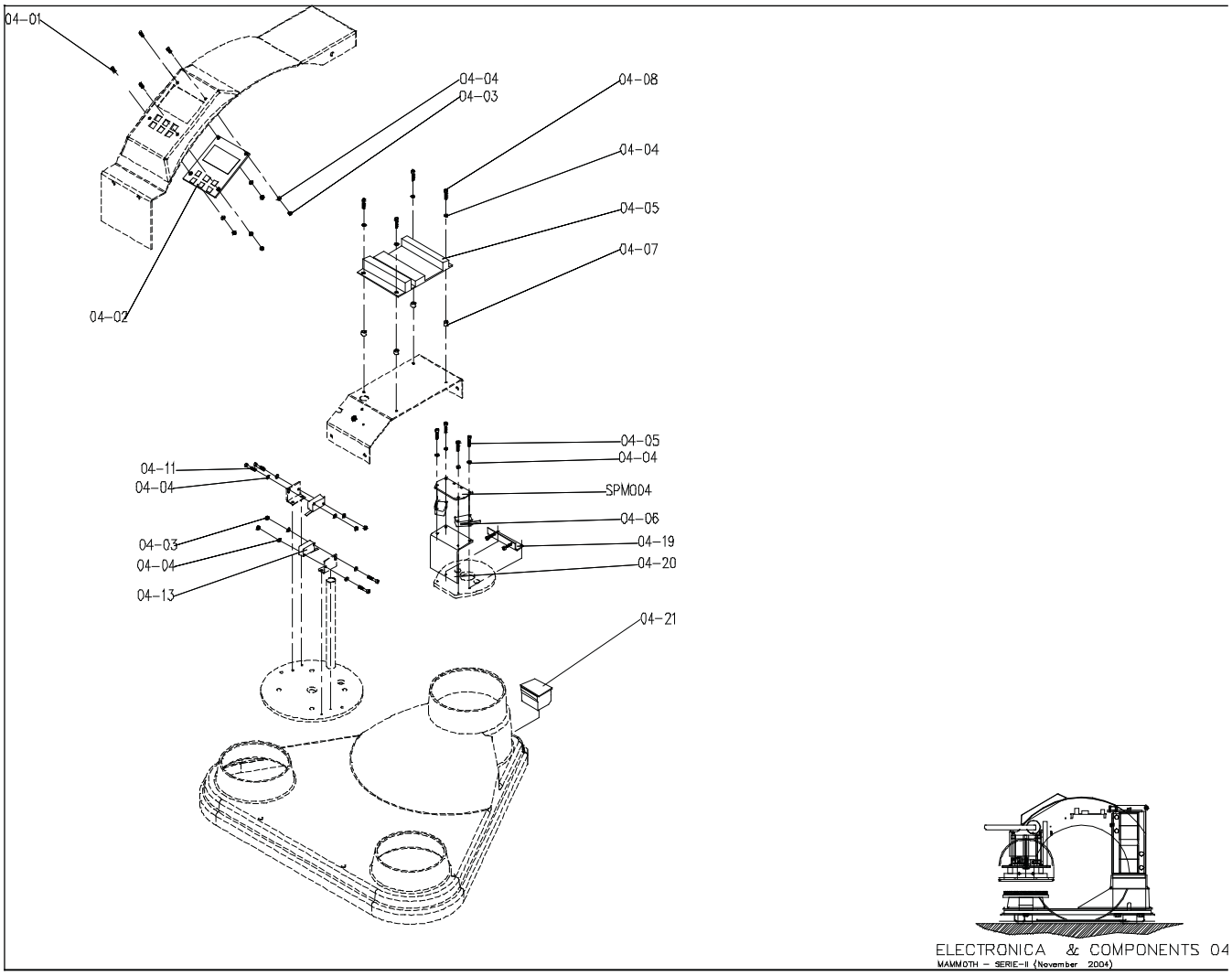

**This drawing only applies to the de NL-15 SQR**

## Parts list 04

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 04-01 | Flat head bolt | M3 x 12 | 4 | * |
| 04-02 | Display | TP | 1 | SPAMA 04-02 |
| 04-03 | Lock nut | M3 | 8 | * |
| 04-04 | Plain washer | 3,2 x 7 x 0,5 | 20 | * |
| 04-05 | Socket head screw | M3 x 16 | 4 | * |
| 04-06 | Micro switch | | 2 | SPAMA 04-06 |
| 04-07 | Distance bush | | 4 | SPAMA 04-07 |
| 04-08 | Main board | TP | 1 | SPAMA 04-08 |
| 04-09 | Fuse holder | *** | 1 | SPAMA 04-09 |
| 04-10 | Fuse 4A slow | BN238547 | 1 | SPAMA 04-10 |
| 04-11 | Socket head screw | M3 x 20 | 4 | * |
| 04-13 | Safety switch | | 2 | SPAMA 04-13 |
| 04-14 | Foot switch connector | Not on drawing | 1 | SPAMA 04-14 |
| 04-15 | Pull relief | Not on drawing | 1 | SPAMA 04-15 |
| 04-17 | Sunk head bolt | M3 x 25 | 4 | * |
| 04-18 | Nut | M3 | 4 | * |
| 04-19 | Bracket switches | | 1 | SPAMA 071-A |
| 04-20 | Adjustment bracket | | 1 | SPAMA 070-A |
| 04-21 | Net entry incl. filter | | 1 | SPA105003 |
| SPM004 | Cover, top cam | | 1 | SPAMA 004-B |

*Thermopatch does not hold stock for this item.

## Drawing 04

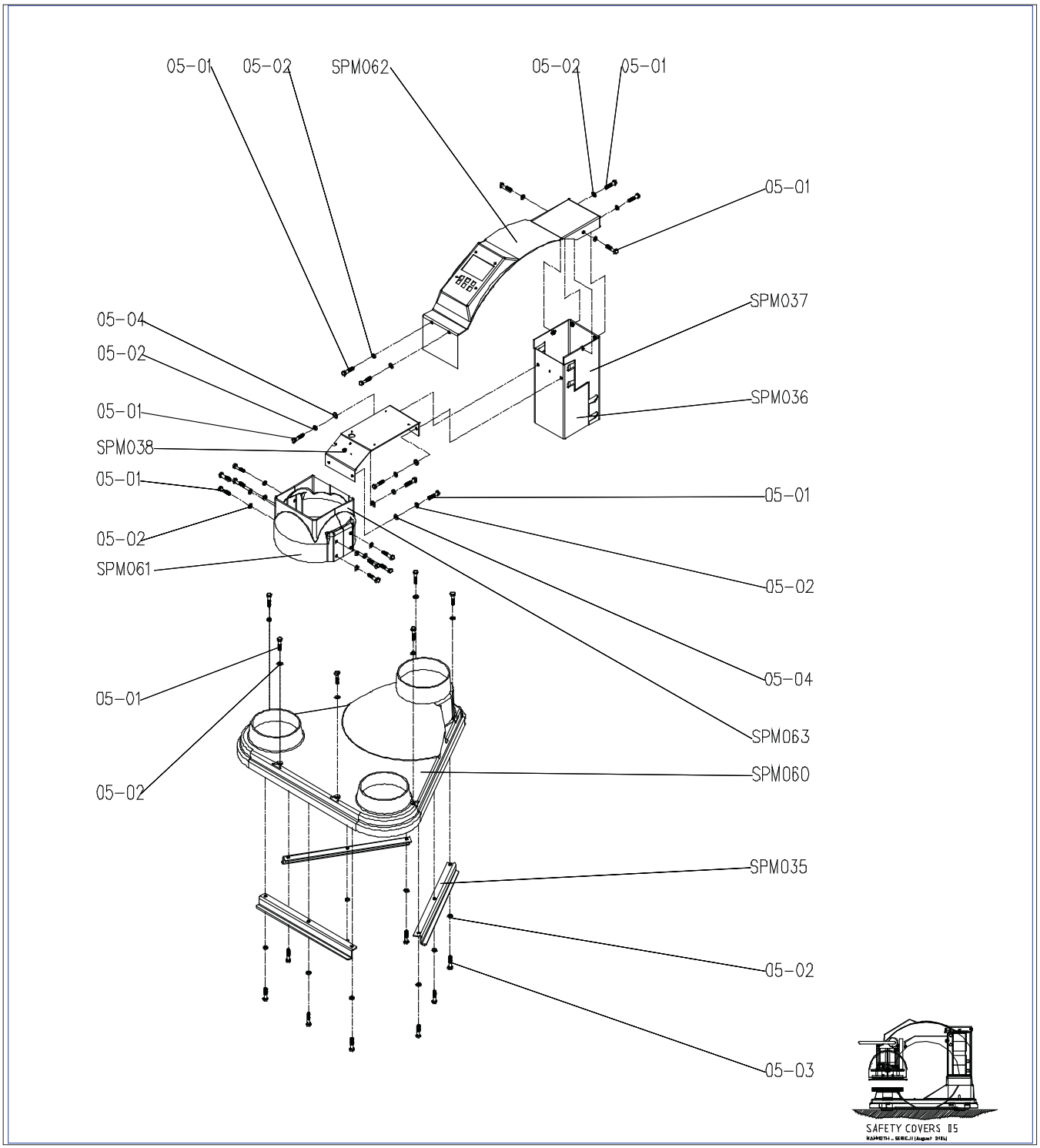

04-01
04-04
04-03
04-08
04-04
04-05
04-07
04-02
04-05
04-04
SPM004
04-06
04-19
04-20
04-11
04-04
04-03
04-04
04-13
04-21
ELECTRONICA & COMPONENTS 04
MAMMOTH – SERIE-II (November 2004)

## Parts list 05

| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 05-01 | Socket button screw | M5 x 10 | 26 | * |
| 05-02 | Plain washer | 5,3 x 10 x 1 | 35 | * |
| 05-03 | Hex. Head bolt | M5 x 16 | 9 | * |
| 05-05 | Nut | M5 | 1 | * |
| SPM035 | Protective strip | | 3 | SPAMA-035-B |
| SPM036 | Cover, hinge block, front | | 1 | SPAMA-036-B |
| SPM037 | Cover, hinge block, rear | | 1 | SPAMA-037-B |
| SPM038 | Bracket main board | | 1 | SPAMA-038-C |
| SPM060 | Main cover, frame | | 1 | SPAMA-060-E |
| SPM061 | Element cover, front | | 1 | SPAMA-061-D |
| SPM062 | Top cover, press arm | | 1 | SPAMA-062-C |
| SPM063 | Element cover, back | | 1 | SPAMA-063-D |

*Thermopatch does not hold stock for this item

## Drawing 05

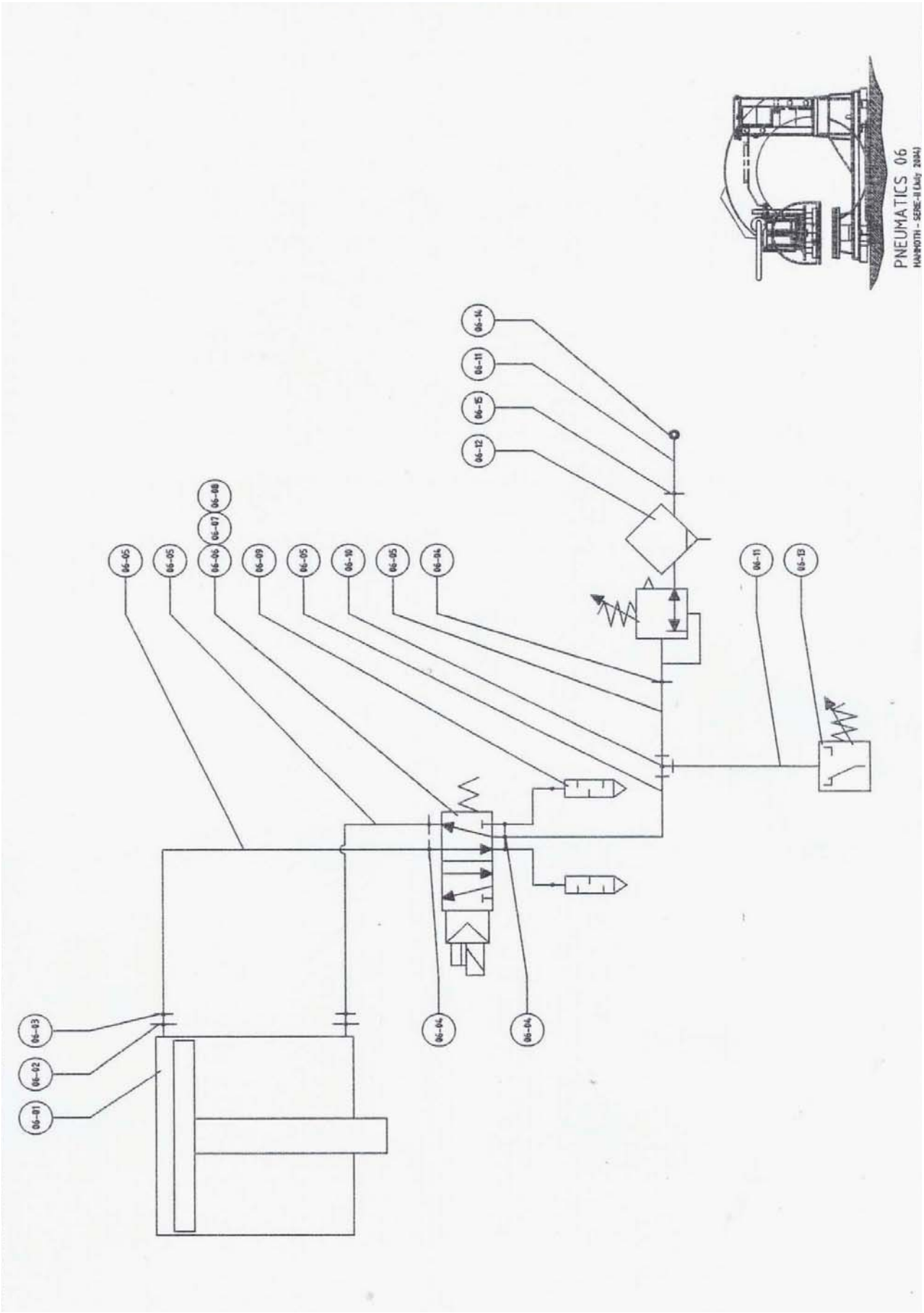

05-01
05-02
SPM062
05-02
05-01
05-01
SPM037
SPM036
05-04
05-02
05-01
SPM038
05-01
05-02
SPM061
05-01
05-02
05-04
SPM063
SPM060
05-01
05-02
SPM035
05-02
05-03
SAFETY COVERS 05

## Parts list 06 for pneumatic parts

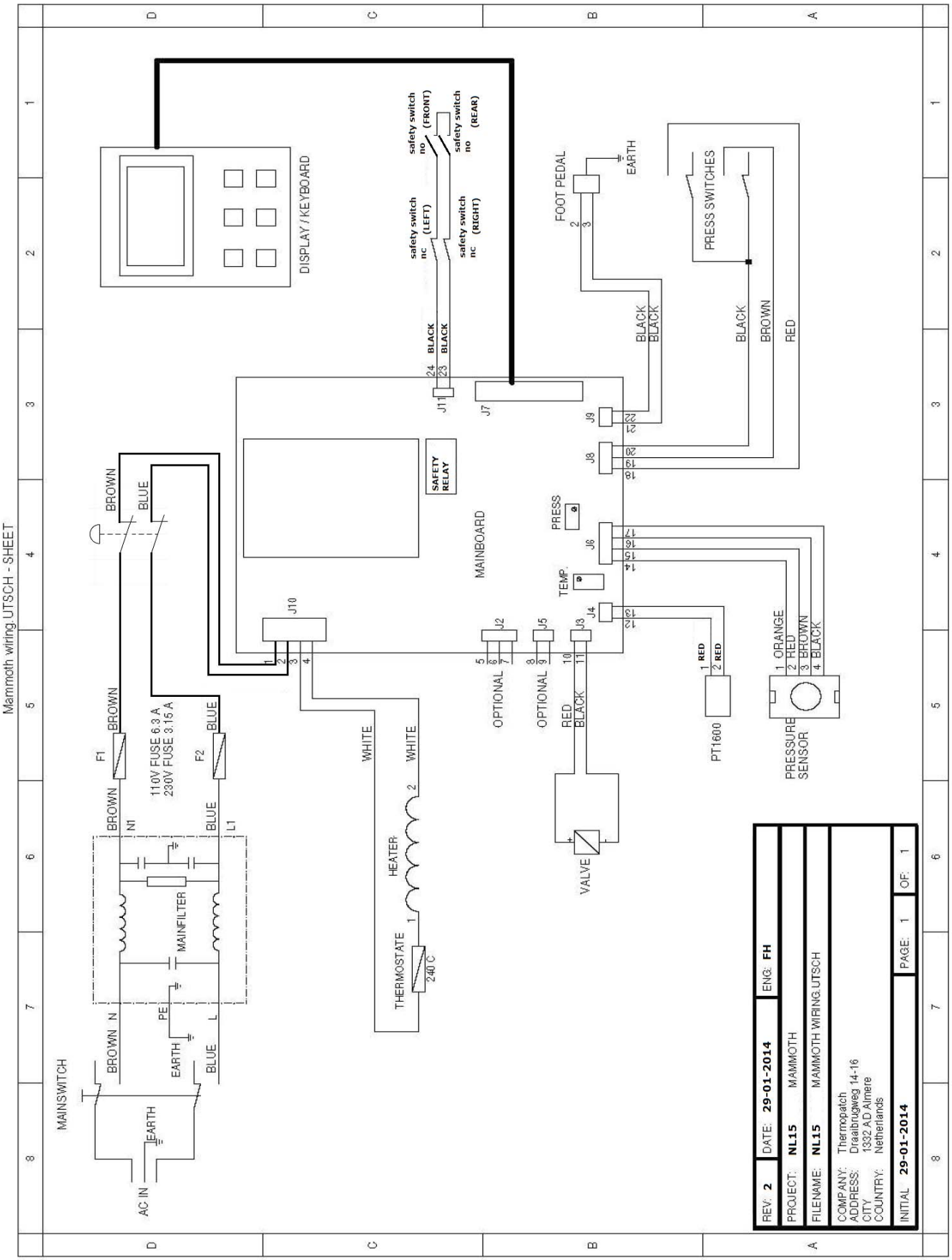
| Code dwg | Description 1 | Description 2 | Quantity | Thermopatch Code |
|---|---|---|---|---|
| 06-01 | Cylinder Extra: XB6*Z-2668 | | 1 | SPAMA-06-01 |
| 06-02 | Adapter nipple 3/8-1/4 | | 2 | SPAMA-06-02 |
| 06-03 | ¼”-90degr-hose4mm | | 2 | SPAMA-06-03 |
| 06-04 | 5mm-90degr-hose4mm | | 3 + 1 | SPAMA-06-04 |
| 06-05 | Hose | | L = | SPAMA-06-05 |
| 06-06 | 5/2 valve | | 1 | SPAMA-06-06 |
| 06-07 | Connector, incl. wire | | 1 | SPAMA-06-07 |
| 06-08 | Mounting plate | | 1 | SPAMA-06-08 |
| 06-09 | Silencer | | 2 | SPAMA-06-09 |
| 06-10 | T-fitting 4-4-6 | | 1 | SPAMA-06-10 |
| 06-11 | Hose | | L = | SPAMA-06-11 |
| 06-12 | Air preparation unit | | 1 | SPAMA-06-12 |
| 06-13 | Pressure sensor | | 1 | SPAMA-06-13 |
| 06-15 | 5mm-90degr-hose6mm | | 1 | SPAMA-06-15 |

*Thermopatch does not hold stock for this item.

## Drawing 06 pneumatic diagram with parts



## Drawing 07 Electrical wiring diagram

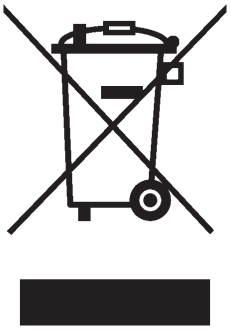


# 10. Faults

If a problem should occur, please consult the list below; if the problem you are facing cannot be solved by yourselves contact your supplier.

| Fault | Possible cause | Oplossing |
|---|---|---|
| Heating plate does not heat up. | 1. ON/OFF switch is not set to ON | Check |
| | 2. Machine is not connected to the electricity grid | Check |
| | 3. Electronics not connected to the machine | Check |
| | 4. Temperature sensor defective | Check |
| | 5. Electronics wrongly set | Check |
| | 6. Electronics defective | Check |
| | 7. Heating element defective | Check and replace when necessary |
| Heating plate is too hot or too cold. | 1. Check the temperature settings | Correct |
| Machine opens too soon | 1. Check the sealing time settings | Correct |
| Machine does not close | 1. Pressure or temperature is not correct | Check |
| | 2. Swivel arm is not in final position | Bring swivelling arm back to end position |
| | 3. Contact switch is not correctly positioned | Correct |
| Insufficient adhesion of patches, label tapes, labels or fixing of the transfers | 1. Press time too short | Increase time settings by 2 seconds and check results |
| | 2. Incorrect pressure | Set pressure correctly with knob and check results |
| | 3. Heating plate too cold | Check temperature |
| | 4. Press pad of lower plate worn out | Replace |
| | 5. Teflon below heating plate dirty or worn | Clean with soft cloth or replace |

# 11. End of life



Choose to dispose of the machine responsibly when it has reached its end of life.
Electrical machinery, accessories and packaging should be recycled as much as possible in an environmentally responsible manner.
- Dismantle the machine groups: steel parts / pneumatic components / electrical components
- These can be separated and returned for recycling.

**ATTENTION!**

*Always dispose according to current and locally applied guidelines for health and safety and disposal requirements.*

| | | | | |
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Jan2014